

INTERGLACIAL PERIODS.

SIR,—In the last Number of this MAGAZINE Mr. McGee does me the honour to refer to the theory which I have advanced to account for those warm interglacial periods, of which the records are preserved in most highly glaciated regions which have been examined with adequate attention. As Mr. McGee appears to have misunderstood what I have written, and to have fallen into a misapprehension in regard to the melting of polar ice, perhaps you will kindly allow me, for the sake of those not familiar with the subject, to point out where he has gone wrong. I have not, as he supposes, assumed that the comparative disappearance of ice on the warm hemisphere, during the period of high excentricity, is due to any additional heat derived from the sun in consequence of the greater length of the summer, for there is no such increment. A *shortening* of the winter, or snow-falling season, would no doubt considerably diminish the quantity of the ice; but the mere *lengthening* of the summer would have little effect. The real and effective cause of the disappearance of the ice was the enormous transference of equatorial heat to temperate and polar regions by means of ocean currents. My theory holds that the polar ice was melted mainly by heat carried from equatorial regions, rather than by the direct rays of the sun.

Mr. McGee calculates that only .615 of a foot of polar ice would be melted annually; but there is no reason why there may not have been more than twenty times that quantity. JAMES CROLL.

PALÆOLITHIC IMPLEMENT FOUND IN DEVONSHIRE.

SIR,—About a month ago I had the good fortune to find a palæolithic implement in the parish of Kentisbeare. It is, I believe, the first which has been found in the valley of the Culm. Some time ago Mr. H. B. Woodward suggested to me the probability that palæolithic implements might be found here. When, therefore, his forecast was verified, I wrote to him informing him of the fact, and I am now writing to you at his suggestion. I found it on a heap of stones collected from a field and piled up in the corner of the field for removal as road metal. It is of bluish chert, weathered white. The field is one only lately brought into cultivation, has a thin peaty soil, and is situated near the centre of Ordnance Sheet XXI., where the words "Kentisbere Moor" occur; and its exact position would be about the middle of the word "Moor." It must have lain at no great distance beneath the surface, and have either been brought up by the plough, or by ditching and draining work. I have shown it to Mr. D'Urban, Curator of the Albert Memorial Museum at Exeter, and to Mr. P. O. Hutchinson, of Sidmouth, the latter of whom has kindly taken the inclosed rubbing. As, however, the rubbing does not quite correctly represent the shape (for the surface when spread out will of course slightly exceed the actual breadth) I have traced its outline, and shown the extreme length and breadth.¹ W. DOWNES.

KENTISBEARE, COLLUMPTON, DEVON, Sept. 12, 1879.

¹ The implement agrees closely with that drawn in Dr. John Evans's invaluable work on Ancient Stone Implements, plate ii. fig. 17.—EDIT. GEOL. MAG.